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Distributing leadership and management in self-managed organization

Master's thesis

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Summary of Master's thesis

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Summary

Objective of the Study

The objective of this research was to study how leadership and management processes are distributed in self-managed organizations, with a focus on leadership processes. According to contemporary organizational theorist there is a need to reorganize organizations to better deal with the prevailing increasingly complex business environment. Additionally, it is engrained in public thought that the absence of leadership, means the absence of organization. The main research question of this study was: How is leadership and management distributed in self-managed organization? The main question was approached through three sub questions: SQ1: How should one define "agile" self-managed organizations? SQ2: What sub processes are associated with leadership? and SQ3: How do agile practitioners in leadership positions view leadership?

Methodology and Theoretical Framework

The theoretical framework of the study was based on suggestions from agile practitioners and previously conducted studies by the researcher. The framework describes an academically derived understanding of self-managed organization, to support the view of contemporary leadership and organizational literature. Additionally, it builds on a previously constructed model of viewing leadership as a process listing associated sub processes to leadership and management. The empirical part followed a qualitative research approach. Data was gathered through six semi-structured research interviews with two agile consultants and four individuals having leadership roles in self-managed organizations. The consultants were added for a more theoretical view on the subject.

Findings and Conclusions

The findings of this study indicate that leaders of agile organizations see leadership as a process, supporting the theories that leadership and management are a subset of processes separate from each other, but all are needed in some from to successfully operate an organization. Additionally, it was found that scientific research in contextual ambidexterity of organizations, best describes the notions presented in contemporary leadership and organizational literature, in a fashion that is academically acceptable. Finally, this research suggests, based on the findings, that self-managed organization or contextually ambidextrous organizations, have become the best way to deal with the prevailing complex business environment, since "knowledge" has become the central recourse in today's society, as opposed to capital during the previous century.

Key Words leadership, management, self-organizing, self-managing, Agile organizations

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Tiivistelmä

Tutkimuksen tavoitteet

Tämän tutkimuksen tarkoitus oli tutkia miten johtamisen ja hallinnon prosessit ovat hajautettu itseohjautuvissa organisaatioissa, keskittyen johtamiseen liittyviin prosesseihin. Nykyajan organisaatioteoreetikoiden mukaan on tarve uudelleen organisoida organisaatioita, jotta ne pystyvät paremmin käsittelemään vallitsevaa ja kiihtyvää liikemaailman monimutkaisuutta. Tämän lisäksi julkiseen ymmärrykseen on juurtunut käsitys, että johtamisen poissaolo, tarkoittaa ettei organisaatiota ole laisinkaan. Tutkimuksen päätutkimuskysymys oli: Miten johtaminen ja hallinto ovat hajautettu itseohjautuvissa organisaatioissa? Päätutkimuskysymykseen pyrittiin vastaamaan kolmen alakysymyksen avulla: SQ1: Miten tulisi määrittää ketterät itseohjautuvat organisaatiot? SQ2: Mitkä alaprosessit liittyvät johtamiseen? Ja SQ3: Miten johtotehtävissä olevat, ketteryyttä harjoittavat henkilöt näkevät johtamisen.

Tutkimusmenetelmä ja teoreettinen viitekehys

Teoreettinen viitekehys pohjautui ketteryyttä harjoittavien asiantuntijoiden ehdotuksiin ja tutkijan aikaisempaan tutkimukseen. Viitekehys kuvailee tieteellisesti polveutuvaa ymmärrystä itseohjautuvista organisaatioista, tukeakseen nykyajan johtamisen ja hallinnon kirjallisuutta. Lisäksi tutkimus rakentuu aikaisemman tutkimuksen rakentamaan malliin, joka näkee johtamisen prosessina ja luettelee johtamiseen, sekä hallintoon liittyviä alaprosesseja. Empiirinen osuus tutkimuksesta toteutettiin laadullisena tutkimuksena. Tutkimusaineisto kerättiin kuudella puolistrukturoiduilla teemahaastatteluilla, haastattelemalla neljää, ketterissä organisaatioissa, johtotehtävissä olevaa henkilöä ja kahta ketterää konsulttia.

Tutkimuksen tulokset ja johtopäätökset

Tutkimuksen tulokset viittaavat ketterien organisaatioiden johtajien näkevän johtamisen prosessina. Tämä tukee johtamisen ja hallinnon teorioita, jotka näkevät nämä prosessit sarjana eroteltavia alaprosesseja, mutta joita kaikkia kaivataan jossain muodossa voidakseen onnistuneesti johtaa organisaatiota. Tämän lisäksi todettiin tieteellisen tutkimuksen ”contextual ambidexterity”:n olevan paras tieteellisesti hyväksytty kuvailu ketteristä organisaatioista. Lopuksi tämä tutkimus esittää väitteen, että ketterä organisoituminen organisaatioissa on paras tapa käsitellä maailman jatkuvasti kiihtyvää liiketoiminta ympäristöä, koska tiedosta on muodostunut keskeisin resurssi tämän päivän yhteiskunnassa, varallisuuden sijaan mikä oli edellisen vuosisadan keskeisin resurssi.

Avainsanat johtaminen, hallinto, itseohjautuvuus, ketterät organisaatiot

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This Master's Thesis is an expression of grit and determination. I never actually thought I would graduate with a degree in computer science, but I sought to find the most value out pursuing topics of interest within my studies. I will carry the learnings from this study in future endeavors and it has already helped me overcome many challenges. Through this study I also found my *ikigai*.

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Table of content

1. Introduction

There is a need of reorganizing organizations in today's world [1]. The need has arisen from the rapid speed our environment changes due to digitalization and the disruptive innovations around information sharing [2, p. 6]. This has created environments that are no longer complicated, but rather seen as complex [2, pp. 57-59]. An explanation of the difference between complicated and complex systems is having multiple components that affect each other in seemingly predictive ways (complicated) versus disproportionate relationships between components where a critical amount of small change can make a big difference (complex), thus producing emergent outcomes [3]. In other words, the previous organizational models used, have served a complicated environment and now there is a need for new models that tackle the challenges the complex environment our society faces today as Laloux explains in his book *Reinventing Organizations* [1]. Additionally, another way of describing this need is *"Organizations need a new operating system"* as Bryan J. Robertson the creator of Holacracy puts it [4]. Where organizations have some sort of hierarchical structures Holacracy has "circles" and decision-making is not a top down approach, but an advice seeking process and decision taken by those who the problem concerns. However, one should note that Laloux and Robertson's writings are in "mainstream" books, not scientific journals which makes them somewhat less credible in a scientific context.

Never the less, Laloux explains that to deal with these new complex environments one needs to create self-managing teams, which is why he sought to find and study organization employing self-managing ways of working [1, pp. 20-25]. McChrystal explained dealing with complexity as a need of pushing decision-making authority to the individuals and teams closest to the problem [2, p. 219]. Furthermore, the problem of complexity is something software development teams have been trying to solve by employing so called agile working frameworks [5]. One such agile framework is Scrum, which describes teams to be self-organizing that consist of "*individuals [that] manage their own workload, shift work among themselves based on need and best fit, and practice team decision-making"* [6] as explained by Highsmith, the co-writer of the Agile manifesto [7]. These examples indicate that this "new" way of organizing teams and organizations has emerged to deal with complex environments, seemingly producing better results than their peers implementing other organizational models [1]. Additionally, complexity theory challenges to think differently about leadership, it suggests that leadership becomes creating environments

that have the necessary conditions for innovation, not trying to create innovation itself [8]. However, it begs to question whether the actual nature of leadership has changed and what about management?

As identified by a study in behavioral science, the concept of leadership spreads through our understanding of organizations [9]. Morgan and Smircich state as a fact that *"The concept and practice of leadership, and variant forms of direction and control, are so powerfully ingrained into popular thought that the absence of leadership is often seen as an absence of organization"* [9, p. 1]. Hence to understand organizations and how to change them one needs to understand the nature of leadership. However, the difficulty in analyzing leadership is it being a matter of perception [10]. Grint tries to makes some sense out of the different leadership perceptions and developed a framework that divides leadership perception into four different approaches; leadership as a person, leadership as achievements; leadership as position and leadership as a process [11]. Previous studies have concluded that, leadership as a process being the least studied [12, 13] and the most likely to help understand the kind of leadership is needed in today's world [1, 2, 14]. The following sub-chapter gives an overview of the findings from previous studies and what perception the researcher basis the leadership view on in this study.

1.1 Previous studies

This literature review basis its perceptional views on leadership on a previous study [15] that drew its model from studies declaring there being a difference between management and leadership [16, 17, 18]. Additionally, it adds the perceptional view that leadership is a process, rather than any of the other three perceptions of leadership defined by Grint [11]. Hence, this study refers to activities associated with leadership and management as *process*es and not *tasks,* unlike the previous study by Dolenc, to better align itself with prevailing understanding of the used terminology in the field of study. Furthermore, this study acknowledged that there is a confusion within the field of leadership research when it comes to used terms, because of a misalignment between practitioners and academics [13, 19]. To not inflict interpretation issues of used terms this study defines, and further refines, the process descriptions of the different leadership and management processes based on findings from the previous study [15].

In addition to establishing a vocabulary for identifying the different processes associated with management and leadership in the previously conducted research on agile software teams

implementing Scrum by Dolenc [15], the study also concluded, based on literature reviews, the following:

- Leadership and management are different, but complementary activities [18]. Both are needed to ensure success in complex, constantly changing, business environments.
- Software development teams implementing Scrum are better described as *self-managed* teams, instead of *self-organizing* teams, since most if not all the processes associated leadership is handled by the Scrum Master or the Product Owner and not the team itself.
- There is a difference between leadership and management in self-managed teams. In agile teams and arguably agile organizations as well, management is not conducted through a position, because it is heavily associated hierarchical organization [20]. However, management processes are needed in organization and consequently in teams to ensure stability [17].
- The derived tables for leadership and management in the previous study should be further refined to give a better framework of understanding for future studies. The findings of the previous study are listed below, Table 1 describes the leadership processes and Table 2 describes the management processes.

Table 1 - Leadership processes [15]	
Process name	***Description***
Selecting talent	Choosing who can be a part of an organization, team or project
Motivating	Creating reasons for people to act or behave in a certain way
Coaching	Providing a more experienced view and guidance on subject of matter
Building trust	Creating an environment where one can rely on coworkers
Improves labor relations	Making the working environment a more pleasant place for everyone
Increases choice	Expanding or eliminating obstacles that limits decision making
Inspiring	Creating positive feelings that may spark an interest or ability to act.
Establishing direction	Creating a vision
Aligning people	Motivate people to work towards the same goals or vision
Promoting useful change	Foreseeing or understanding the form of change needed and leading the change
Executing with emotion	A lot of emotion involved when executing any form of task or decision

Table 2 - Management processes [15]	
Process name	***Description***
Planning	Creating action points, along with distribution of resources over a period of time
Budgeting	Making financial decisions on how much financial resources can and will be spent
Evaluating	Assessing quality of work
Facilitating	Gathering the needed support and making it available. Also coordinating engagements
Limits choice	Controls the set of options in which decision can be made
Organizing	Arranging project resources such as money, time and people according to needs
Staffing	Allocating human recourses according to needs
Controlling	Limits choice to a certain set of tasks and in which order they should be performed
Problem Solving	Being the entity that solves any issues that must be solved
Monitoring	Oversees progress and supervises work
Managing vision order	Deciding in which order tasks are performed
Executing without emotion	Little or no emotion involved when executing any form of task or decision

Furthermore, the literature review in this study strives to build on findings of the previously conducted study by Dolenc [15] explained above and continue to focus its review on the literature concerning the process like characteristics of leadership on not only on a team level, but an organizational level as well. This study chooses to focus on the leadership processes and not management processes, not to discredit or deem management unnecessary, but because the ability to successfully build and implement agile organization rest solely on the CEO's and owner's belief in whether or not organizations can operate under "*Teal"* laws [1]. Thus, understanding how successfully operating agile organizational leaders view leadership should translate to the practices and structure of the organization [9], inherently including how management is conducted.

Additionally, studies regarding the process view on leadership in decentralized organization, as well as research in how to combine direct and indirect forms of leadership, has been called upon by research highlighting the challenges of leadership studies [13, 12]. Hence, with a better understanding of leadership as a process actually look like in agile organizations one can build a model that can be used to explain the processes that arguably need to exist within organization that hope to employ "*Teal"* modeled organizations consisting of self-managing teams, such as the ones studied by Laloux [1] or agile teams as the ones described in Agile software development framework [6, 7]. Thus, this study argues that with the help of process view on leadership, distinction of leadership and management, along with analyzing how organization employing agile ideologies in their structuring of organizations, allows for an analytic tool to understand the distributed nature of leadership in self-managed organizations and teams.

The following sub-chapters defines the research question and the purpose of the study.

1.2 Research objectives and research question

The purpose of this study is to better understand leadership in the context of decentralized organization, also known as self-managed agile organization, and why more than ever in human history there is a need to review what is known about structuring organizations. Analyzing the understanding of agile organizations and what sort of processes they employ, combined with reviews of different organizational theories would potentially yield an understanding of how to combine direct and indirect forms of leadership [21]. As stated, the ability to successfully build and implement agile organization rest solely on the CEO's and owner's belief in whether organizations can operate under "*Teal"* laws [1]. Thus, understanding how successfully operating

agile organizational leaders view leadership should translate to the processes within, and structure of, the organization [9].

The research problem relates to how organizational leaders of today's complex world, think and should think, about how they structure and lead their organizations. Agile self-management practices could provide the answer to how leadership should be distributed. The goal of this study is to answer the following research question:

RQ: How is leadership distributed in self-managed organizations?

The main research question will be analyzed with the help of three more focused sub-questions, that try to answer the main question with the help of different sources. The three sub-questions are the following:

SQ1: How should "agile" self-managed organization be understood?

The first sub-question tries to address the reason for why now there is supposedly a need to revise our understanding of how organizations should be structured, setting a framework for how to view leadership in such organizations. The research aims to do so by firstly establishing what theories would explain the nature of agile self-managed organizations, thus explaining how they should be viewed. Only when a scientifically accepted perception of such organizations is established can one hope to explain how management, and especially leadership, should be distributed if the goal is to employ agile working practices within an organization.

SQ2: What sub processes are associated with leadership?

As the concepts of organizations and leadership are entwined [9] reviewing literature to form a vocabulary from which to analyze leadership within agile organizations is important because there currently is a misalignment between academics and practitioners [13, 19]. The second supportive research question strives to give a framework for the third supportive research question, which answer is sought by conducting a qualitative field study in the form of interviews with open ended questions.

SQ3: How do agile practitioners in leadership positions view leadership?

The third supportive research question aimed to from an understanding of how agile practitioners view leadership and if these views corresponded with the suggested model derived by the literature

review. Also, as Laloux's argues, the key to successfully establishing a self-managed organization relies solely on the belief of the owner or CEO's perception of whether such organizations can function as such [1]. Thus, the research deemed it necessary to understand their view and how this might translate to actions within the organization. Furthermore, the qualitative field study limits itself to only probing for processes associated with leadership as viewed by the interviewees and not management. How the conducted research scopes itself is described in the following sub-chapter.

1.3 Scope of the thesis

To answer to first supportive research question three theories were selected based on a preliminary review of literature. These three theories are cybernetics, complexity theory and ambidexterity in organization. To scope the reviews of these theories, the literature review keeps itself to only explaining the key notions of these theories and elaborating on only few sub fields of study within these theories. Never the less, these three theories give an understanding of why the study is relevant, how the agile self-managed organizations should be perceived and emphasizes the importance of approaching leadership as a process. Inherently, the scope of this study further limits itself to reviewing mostly leadership studies approaching the topic from a process like view on leadership. Hence, creating a better basis to analyze the nature of leadership and agile self-managed organizations [15].

To scope this research further, the previously established difference between leadership and management [15] allows for a focused view on the processes found to be associated with leadership and not management, in the empirical study of this research paper. This study acknowledges leadership and management *"... are two distinctive and complementary activities. Both are necessary for success in an increasingly complex and volatile business environment."* [18, p. 103]. In other words, an organization cannot do with only one of the two, thus this study does not want discredit the importance of management in any context concerning organizations. Additionally, it is acknowledged that leadership and management tasks, or processes, that can be performed by the same person [22, 23], but the personalized view of leadership is mostly overlooked in this review because the perception of this review basis its view on leadership as consequence of group relations [10] and leadership as a process [11]. The approach off clearly distinguishing between leadership and management is discredited, in addition of being counterproductive by some scholars [23, 10].

However, these particular scholars basis their perceptional view on leadership (and management) as a personal trait and because management being associated with position in hierarchical structures [20, 24], this study argues there is a possibility to view leadership as a separate practice from management in self-managed agile organizations that presumably are dynamic, not hierarchical, and where the leadership and management practices can be viewed as processes [21]. In other words, leadership and management are arguably something that should not be studied as something held by position in agile self-managed organization. Additionally, as processes they can be viewed as mutually exclusive, even if it is deemed counterproductive to view them as mutually exclusive from a personified view of leadership [10, 23]. Clearly establishing the approach off the researcher's view is the first step towards meaningful and productive leadership research [11].

How this study is structured is described in the following subchapter, after which the reviewed literature is presented. The literature review focuses on theories that are not directly related to leadership, since previous leadership research has failed to provide a link between indirect and direct forms of leadership [13] and as Gordon & Yukl explain the indirect forms of leadership being organizational constructs that enable certain types of direct leadership [13, p. 360]. How to construct the organization considering indirect forms of leadership could be elaborated on by a previously define set of academic theories listed by Dolenc [15].

1.4 Structure of the thesis

This thesis is divided into six chapters: 1. Introduction, 2. Reviewed Literature, including the description of the methodology of the literature review 3. Results of the literature review, including the answers for the supportive research questions one and two, 4. Empirical Methodology, 5. Results of empirical study, including the result for the sub research question three summarized in its own subchapter, 6. Discussion and 7. Conclusion. The introduction has presented the relevance, the background, its scope and the purpose of this study. The following chapter reviews theories deemed relevant by in understanding the context of importance of the research question, establishing a combination of theoretical frameworks deemed relevant for the present study. The theories are elaborated on in their respective subchapters within chapter two, these are; cybernetics, complexity theory, ambidexterity in organizations and leadership as a process. Results of the literature review are presented in chapter three. Chapter three is divided into two sub chapters presenting the results of the conducted literature review in terms of the first and second sub

research question. The empirical methodology is presented in chapter four, elaborating on the qualitative research approach of semi-structured interviews, how interviewees were chosen, the collection and analyzation of data, along with the trustworthiness of the study. Results of the empirical study are presented in chapter five. The discussions in chapter six will reflect over the findings with the help of the three sub-research questions, in addition to criticism and suggestions for future studies. Finally concluding the findings of this study in chapter seven.

2. Reviewed Literature

The reviewed literature creates a combined theoretical framework that establishes an understanding of self-managed organizations, in addition to a model for understanding and analyzing leadership in the context of self-managed organizations. The literature review aims to answer the two first sub-research questions:

SQ1: How should "agile" self-managed organization be understood?

SQ2: What sub processes are associated with leadership?

Methodology of this literature is described in chapter 2.1 and elaboration on the theories to answer SQ1 is described in chapters 2.2 Cybernetics, 2.3 Complexity theory and organizations, and 2.4 Theory of ambidexterity in organizations. These reviewed theories where chosen based on discussions and suggestions from agile practitioners prior to conducting this literature review. They lay the foundation for answering SQ2, which underlying theory is mainly discussed in chapter 2.5 Leadership as a process.

Chapter 2.5 derives the results of the literature review, deriving the answers to SQ1 in chapter 2.5.1 and SQ2 in chapter 2.5.2. The answer to SQ1 explains the view and understanding one should have of organizations that are self-managed agile organizations and arguably validates the approach to viewing leadership as a process when analyzing leadership within such organizations. The answer to SQ2 builds on Dolenc's previous research [15], further refining the tables elaborating the different leadership & management sub processes. These tables and the answer to SQ2 outline the approach for the empirical study in chapter 3.

2.1 Methodology of the literature review

The goal of this literature review is to answer the following research questions:

SQ1: How should "agile" self-managed organization be understood?

SQ2: What sub processes are associated with leadership?

To answer the first sub-research, the researcher aimed to find academically accepted literature instead of "main stream books" referenced in the introduction [1, 2, 4]. Based on suggestions from agile practitioners three theoretical frameworks where chosen for review; cybernetics, complexity theory in organizations and ambidexterity in organizations. Each inherently incorporating some

notions from the other, cybernetics emerging in the 1940's laying the foundation of self-organization [25], complexity theory and complex adaptive systems integrating these notions in the 1960's [26], and ambidexterity in organizations in the 1980's building on complexity theory in the context of conceptual ambidexterity [27], along with a widely accepted theory in organization science [28].

The conducted literature review relied mainly on Google scholar to source the reviewed literature. For chapters 2.2-2.4, the search words used were *cybernetics*, "*complexity theory + organizations"*, "*complex adaptive systems"*, "*ambidexterity in organizations*" and *"ambidextrous organizations"*. For these no constraints in dating was deemed necessary, because relevance and amount of previous citations outweighed the dating since the researcher aimed to find the most accepted descriptions of the reviewed theories. Additionally, the researcher tried to mainly seek references from academic journals, rather than other sources. However, references in the field of cybernetics within academic journals proved scarce, but research conducted by a specific scholar proved useful in highlighting the history of cybernetics [25, 29].

Chapter 2.5 reviews the references on leadership and management from Dolenc's previous study, further elaborating on other research within the same paradigm of viewing leadership as a process, with additions from the reviewed literature from the other chapters and suggestions from peer reviews of the previously conducted study [30, 11, 31]. Additionally, during the conducted literature review "leadership as purpose" [32, 33, 34], became a topic of interest also addressed in chapter 2.5

The results of the conducted literature review are described in chapter 3. Chapter 3.1 answers SQ1 and gives an academically accepted perceptional view of self-managed organization. Chapter 3.2. answers SQ2, by iterating on Dolenc previously constructed model of leadership and management [15] based on the findings of the conducted literature review. The findings in chapter 3 gives the theoretical framework for the empirical part of this study, which aims to test whether the suggested perceptional view of the theoretical framework is aligned with the views of practitioners.

2.2 Cybernetics

Cybernetics has its roots in the thoughts of known philosophers in the ancient Greek era, such as Aristotle, Plato and Socrates [35]. The ancient Greek word *kyperneticos* means (good at) steering, within the context of governance Aristotle favored the phrase, *kyberneteike tekhne*, *tekhne*

translates to “art”, the phrase meaning the “art of steering” [35]. Barnabas explains that to Aristotle governance was an art, not knowledge or skill. In their research on the development of modern day cybernetics Umpleby and Dent found that the use of word the *cybernetics* in the English language was picked up by three different scientists all established around the 1940’s, namely; Wiener in the field of electrical engineering, McCholloch in the field of human neural science and Touring who laid the foundation for computer science, along with artificial intelligence [25].

Umpleby and Dent further elaborate that one underlying notion of all these three disciplines of cybernetics is that decision making can be distributed in a system, even though the general assumption is that the most interconnected part of the system-network makes the decisions [25]. As an example, from McChollochs research; one view’s the brain as the one that decides how to body acts, however there are parts in the body that work without the brain telling them to act [36]. The focus of studies in cybernetics is to understand how a system without a central decision-making entity, uses information, reacts to it and changes to mainly better perform the first two tasks again and again to reach a desired goal within the system [37].

Given the scope of this research paper and its purpose, only a few findings from Wieners and McChollochs field of cybernetics are of further relevance to the conducted study. What Wiener set out to do was to create a machine that would react to the changes in its environment, to then act in manners better suited to the changed environment [38]. Wiener and his fellow researchers realized that they were dealing with teleological problem, that is a philosophical problem were natural processes are caused by events in the future, rather by events in the imminent past [25]. The fact the problem was a teleological and not mechanical, it was not accepted widely accepted by the scientific community at the time [25]. Hence, another researcher, Ashby, picked up on Wieners research in the 1960’s and set out to develop a mechanistic theory that would hopefully accepted by the scientific community. His conclusion was that if there exists a system regulator it needs to model the systems it regulated and to do so it needed a model of the regulated system [39]. Ashby further explains the model would describe consequence of actions and only by adding descriptions of current state, the description of the desired future state could be attained [25]. This theory tackled the teleological issue of Wieners theory, since even though the desired state was in the future, all of the elements of the future state existed in the regulator and could thus cause goal oriented behavior [39]. To simplify this into the context of the conducted research; Ashby’s theory

suggested that even if actions by systems described within the field of cybernetics are caused by the "future" there can exist a "system regulator", which by embodying the current state of the modeled system, can cause all the different elements within the system to act towards a common goal, or "future state".

Furthermore, Wiener's book about Cybernetics, inspired by his studies in the field, suggested the idea of second industrial revolution [40]. Wiener explains that the first industrial revolution happened when machines started replacing the need for human physical labor and the second occurred when machines started substituting need for cognitive work, such as processing information and decision making [25]. Additionally, even if McChollouh research in cybernetics mainly focused on understanding the human nervous system (by combining neurophysiology, mathematics and philosophy) his research inspired what is called "second-order cybernetics" in the 1970's [29, 25]. Those who regard themselves scholars of second-order cybernetics, or "cybernetics of cybernetics", claimed that knowledge is a biological phenomenon [41], that everyone builds their own reality [42], and key take away from these ideas for the rest of the scientific community was that the observer should be included in the domain of science [29, 25]. Hence, contributing to the acceptance of qualitative field studies within the field of science, that previously had not been accepted by the scientific community [43].

Umpleby himself however was concerned with how cybernetics could help understand how organizations and society could work more effectively [29, 25]. Umpleby argued that knowledge is not a biological factor as much as it is a social factor and focused his own theories around social cybernetics, or the cybernetics of conceptual systems [29]. He further posed the hypothesis that if the academic community would find cybernetics of conceptual systems it would have number of consequence must concerned with how beliefs, and simply questioning those beliefs, could alter or changes the way things are perceived [29]. A simple example of this would be instead of just playing a game in "game theory" (or "the study of mathematical models of conflict and cooperation between intelligent rational decision makers"), one would try to alter the way the other players of the game perceive the game, thus changing how the game is played without changing the rules. According to Umpleby, "a cybernetics of conceptual systems" would allow one to understand how to influence not only machines or organizations, but the ideas used to think about any subject [29].

To conclude this chapter, one should highlight the fact that regardless of the field of science cybernetics was studied, the studies in cybernetics gave birth to the concept "self-organization of systems", among a wide range other sub fields of study [25]. One such field of study is complexity and self-organization of systems is an integral part of complexity theory [44], which is discussed in the following chapter.

2.3 Complexity theory and organizations

As explained in the introduction the between difference complicated and complex systems is having multiple components that affect each other in seemingly predictive ways (complicated) versus disproportionate relationships between components where a critical amount of small change can make a big difference (complex), thus producing emergent outcomes [3].

Complexity theory in the field organizational originally emerged in the 1960's to define a new way of how successful organizations work, instead of viewing them as machines, the goal was to give a new explanation to how organization structure themselves as complex adaptive systems [44]. There is no single agreed upon definition between scholars in different fields of study just common characteristics of complex adaptive systems, or CAS for short [26]. However, the words describe *complex*; many connections between a wide variety of connections, *adaptive*; the ability to learn from experience and *system*; a set of interdependent "things" [44, p. 360]. The "things" referred to be Gorbman in CAS are independent, interdependent, entities that can be pretty much anything from molecules, to people, to organizations depending on field of study. Furthermore, a commonality for entities within CAS is that these entities act without interference from a central body, master neuron or CEO [44, 26].

As Anderson explains (who studies CAS in the field of organizational science); CAS can be characterized by four key elements; agents with schemata, self-organizing networks sustained by importing energy, coevolution to the edge of chaos and system evolution based on recombination [45]. Grobman further elaborates that in the context of organizations this translates to managers or leaders bringing their organizations to *the edge of chaos* rather than promoting troubleshooting, trust employees to solve problems by self-organizing, encouraging informal communications networks, not scripting procedures but rather *going with the flow,* and sustaining a certain level of tension in the organization to foster creativity and thus reaching maximum level of effectiveness [44].

Even if this sounds unstructured and complex systems are unpredictable they are limited by a certain set of order-generating rules, complexity theory also states the importance of interaction together with feedback loops allowing the system to adapt to changes in the environment [46, 47]. In other words, feedback is what makes complex systems, *adaptive* and there always exist some sort rules that ensure stability. According to Zimmerman, the entities in human CAS are individuals who act from their own local knowledge or schemata, schemata being the mental models' individuals use to make sense of their world [26].

Furthermore, It is commonly understood that the world is becoming increasingly more complex due to mainly the rapid developments in information technology [48, 49]. Thus, business leaders and organization have sought to find new solutions to deal with this development in world. An interesting "solution" is the cynefin framework developed David Snowden, along with several contributors and through learnings from working with a multitude of industries and governments [50]. Snowden explains that by combining the traditional approach to leadership and decision making, with complexity science, a new perspective to approaching organizational leadership and problem solving can be made [50, p. 1]. In short, the cynefin framework tries to categorize the nature of the problem environment into one of four domains; simple, complicated, complex and chaotic, each domain having its own set suggested sets of decision making processes for leaders and managers to employ [50]. Due to the scope of this research a more detailed elaboration of the cynefin framework is deemed irrelevant, however Figure 1 gives an overview of the domains and each should be noted that "*Leaders who understand that the world is often irrational and unpredictable will find the Cynefin framework particularly useful.*" [50, p. 2].

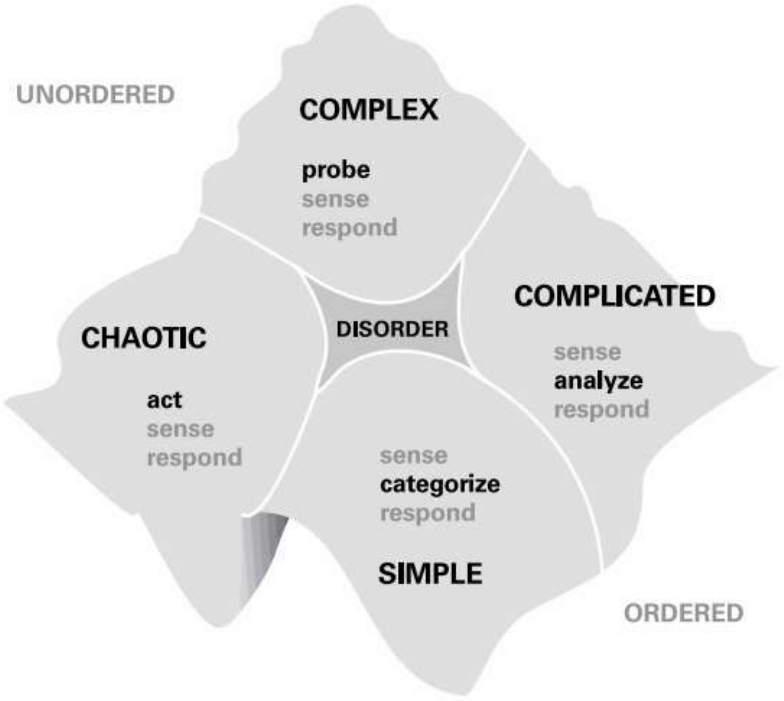

Figure 1- Cynefin framework [50, p. 4]

The cynefin framework was created in the beginning of the current millennia out of a need for dealing with the complexity in todays world, in a way that builds on the existing mental models of executives of the time, rather than just disrupting it entirely. Another such attempt in the context of organizational operating models is ambidexterity in organizations, a theory reviewed in the following chapter.

2.4 Theory of ambidexterity in organizations

Ambidexterity, or *being ambidextrous*, is defined by the oxford dictionary as the ability the use both the left and the right hand equally well. With this definition and building on the theory that organization either exploit existing recourses or explore new ones [28], which is widely accepted view in organizational science, ambidextrous organizations are thus arguably organization who can both explore and exploit resources equally well [27, 51, 52]. To elaborate on the meanings of exploration and exploitation; "*Exploration includes things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, innovation. Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, execution"* [53, p. 1]. Keeping a suitable balance is a primary key to the survival of organizations

in the long run and developing exploitation faster than exploration is proven to be effective in the short run, but leads to system demise over a longer period of time [53].

The initial theories of ambidextrous organizations emerged in the late 1970's (Duncan) and 1990's (Tushman and O'Reilly), suggesting that these organization exhibit superior performance and described structural organizational designs, along with processes, that enabled ambidexterity [54, 55]. Tushman and O'Reilly later argued in the beginning of the millennia that established companies could both develop radical innovation and efficiently utilize their traditional business, by creating distinct units for each of the activities and tightly connected them at the executive level [51]. Other large-scale field studies also gave evidence to the conceptual work of ambidextrous organization, showing that organizational ambidexterity had positive correlation with organizational performance [32, 56].

However, there are two models for viewing organizational ambidexterity; *structural* and *contextual* ambidexterity. Structural ambidexterity was what Tushman and O'Reilly (among a few others) suggested; dividing the divisions within the organization that conduct exploitation and those conducting exploration, managed by a closely it executive layer [55, 51]. Thus, differentiating between exploration and exploitation. As Tushman and O'Reilly explain *"The structure of ambidextrous organizations allows cross-fertilization among units while preventing cross-contamination."* [51, p. 77], referring to the notion that only under supervision the exploring units would be able to utilize recourses from the exploiting division, without being overwhelmed by "business as usual" [51]. Contextual ambidexterity on the other hand argues that in a rapidly changing business environment, or in a very competitive market, structural division between exploratory and exploiting functions does not allow the organization to react to change fast enough, rather it would be better to *integrate* and not *differentiate* [32, 27].

With integration, contextual ambidexterity refers to using behavioral and social means to achieve ambidexterity on an organizational unit level [27]. Contextual ambidexterity, unlike structural ambidexterity, is harder to achieve because aligning two inconsistent goals simultaneously within the same organization is much more complex than pursuing one strategy after the other [57]. In other words, structural ambidexterity view on how to solve the paradox of balancing between exploration and exploitation by cycling between periods of each within the organization [58, 51], instead of allowing the business units themselves choose when to do each [52].

Furthermore, promoters of contextual ambidexterity emphasize the need of organizational culture when constructing ambidextrous organizations [52, 32]. Within the organizational context that successfully employ ambidexterity a balance should be achieved between discipline & stretch, (hard elements) and support & trust (soft elements) [32]. It is also suggested that creating a collective identity, a culture of support, establishing shared goals, along with establishing individual and organizational purpose, all contribute to successfully employing contextual ambidexterity [32, 52]. Employing these allows organizations to reach contextual ambidexterity that would help organizations in *"...sustaining business-unit performance in the era of dynamic economic environments"* [32, p. 223]. Additionally, even if promoters of structural ambidexterity promote a tightly knit executive level in the organization and they also mention a need of decentralized structures [55]. Other research has also highlighted that recruitment and cultivating human capital are an integral part of building an ambidextrous organization [59].

In studies of ambidextrous organizations leadership has mainly been studied from a personified view of leadership, as in what organizational leaders should do to achieve ambidexterity in the organization regardless of the type of ambidexterity [33, 51, 27]. This is arguably in line with leadership as a process, even more so when it comes to leadership in contextually ambidextrous organization, however leadership in ambidextrous organizations still require someone (or a multitude of people) owning or establishing leadership processes [33]. This study argues that a fully distributed form of leadership can be established by incorporating processes of leadership and management on all levels of the organization, and within all individuals of the organization. Leadership as a process is presented in the following chapter.

2.5 Leadership as a process

As Grint describes, there are four ways of viewing leadership [11];

- As Person (Who): the embodiment of certain character traits that makes a leader.
- As Position (Where): holding a position associated with authority or leadership
- As Achievement (What): those who have achieved earn the right to be leaders
- As Process (How): the things one does to get things done makes a leader.

Grint argues that, because there are multiple ways of approaching leadership no consensus can be found in academia of what leadership is, hence one should clearly state which view is used to study

leadership [11]. This literature review builds on the previous study by Dolenc [15] based its perceptional view on leadership as not having the same characteristics as management and that both can be identified by having a certain set of tasks or processes, drawing its view from leadership and management theorist; Maccoby [16], Kotterman [17] and Kotter [18]. Additionally, this differentiation is considered an integral part of studies regarding leadership as a process [11].

Even if these theories suggest that leadership and management are two distinct separate functions they are not mutually exclusive, but contain elements and processes that support each other [18, 10, 31] Differentiating between management and leadership has been deemed counterproductive [10, 23, 30], but mainly so if they are studied from a personified view and not a process approach. However, even if there are difficulties in distinguishing management from leadership, the notion of distributing leadership, as opposed to a focused form, is supported [30]. Never the less, it gives one form of outline for understanding new organizational models, with conceptual leadership theory from an older era [16, 17, 18, 31], within a suggested framework of leadership [11]. Thus, allowing to understand the new, without "breaking" the prevailing perceptional views, a method proven useful in the creation of the cynefin framework [50].

Furthermore, Grint reflected over "Wicked" and "Tame" problems described in the context of problem domains [60], since the nature of the problem dictates the action need to solve it, placing this in the process view of leadership [11]. Tame problems can arguably be solved by applying previously found solution to the same problems, whereas wicked problems have never been seen before thus no existing solution can be applied to solve it [60]. Thus, management is associated with solving tame problems, *"... but leadership is essentially about facing Wicked problems that are literally 'unmanageable'"* [11, p. 9]. This notion is also supported by Zalaznik who argued that leadership embodies elements such as inspiration, vision, human passion and the ability to deal with chaos, whereas management concerns processes that ensure stability and control [31].

Additionally, a point of interest associated with leadership, sparked by the reviewed literature of ambidextrous organization, is defining purpose and how to distribute that sub process in leadership is enacted in a distributed manner. Leadership studies in ambidextrous organization highlight that leaders in ambidextrous organizations need to have the ability to switch between task associated with leadership and management, in addition to when one should lead and when to step back, letting others take over [33]. Furthermore, even if this approach leadership from a position or

personified view they acknowledge ambidextrous leadership can be achieved by distribution; "*... leadership behaviors may be complemented by team attributes, such as the team culture or climate… Several different combinations of leadership behavior and team climate or culture are conceivable. In any case, the coordination and timing of leadership behaviors are critical."* [33, p. 969]. This notion is line with, culture and organizational purpose being integral parts of achieving contextual ambidexterity in organizations [27, 32]. However, the processes of purpose in leadership can arguably be conducted solely by organizational stories and storytelling [61], instead of a single person or leader even establishing it in the first place [34]. Even stating that leadership as purpose should be added next to Grints other four views of leadership [34].

Never the less, this study keeps to its perceptional view of leadership as a process and that being of a distributed nature. Thus, viewing purpose as a sub process to leadership and adding it to the previously constructed model of leadership processes [15]. The results of this literature review are presented in the next chapter and the iterated version of previously conducted study is elaborated on through the findings of the conducted literature review.

3. Results of reviewed literature (SQ1 & 2)

The conducted literature review aimed to answer the two first sub-research questions:

SQ1: How should "agile" self-managed organization be understood?

SQ2: What sub processes are associated with leadership?

The research conducted included reviews of theories within the fields of cybernetics, complexity theory, ambidextrous organizations and theories approaching leadership from the perceptional view of leadership being a process. Elaboration on the findings on SQ1 is found in chapter 3.1, which derived its answer from reviewing the theories around cybernetics, complexity theory and ambidextrous organizations. Furthermore, the results regarding the reviewed literature in terms of SQ2 is described in chapter 3.2, which builds on a model of leadership constructed in a previous study by Dolenc [15].

3.1 Perceptional views of self-managed organizations

Cybernetics is concerned with understanding how systems, uses information, react to it and changes based on changes in its environment mainly to better perform the first two tasks, repeating this loop until reaching a desired goal within the system [37]. In other words, the systems with distributive decision-making act through repeating feedback loops to perform better in order to reach desired goals of the system and cybernetics strives to understand this process.

Theories in the field of cybernetics laid the foundation for the understanding of self-organizing systems [25], which are an integral part of theories regarding complex adaptive systems [44, 26]. Different fields of science utilize complex adaptive systems, as they can be systems containing entities of any form if they are independent, but interdependent entities (among a few other commonalities) [26]. In the context of Complex adaptive systems containing individuals or humans, act independently based on their own local knowledge or schemata, schemata refer to the mental models of the individuals use to make sense on their world [26].

Additionally, second generation scholars in the field of cybernetics, or scholars in the field of second-order cybernetics, argued that "knowledge" is exclusively a biological phenomenon [41] and that everybody builds their own reality [42]. This arguably translates to individuals in "human"

complex adaptive systems needing at least partially shared mental models and/or partially shared local knowledge to ensure stability, in an otherwise chaotic environment that is our world.

An organizational science field of study that draws from organizational complex adaptive systems is contextual ambidexterity in organizations [45]. It has been scientifically proven that ambidextrous organizations produce efficient performance when balancing between exploitation and exploration [51, 27], these two being widely accepted by the academic community as the two actions organizations conduct [54]. Contextual ambidexterity draws from notions of organizational science concerned with complex adaptive systems, arguing that ambidexterity should and can be achieved on a business unit level [45, 27]. Thus, the closest one can get to an academically accepted and empirically tested view on self-managed organizations, is contextually ambidextrous organizations.

Furthermore, leadership studies in CAS and in conceptual ambidexterity approach their research by mainly (but not exclusively) examining what a leader or manager does to affectively operate within the organization [33]. However, reflecting over system views in cybernetics there is no need for such a central entity to exist to reach the goals of the system. Hence, if one is to study any form of leadership or management within such a system one arguably should study the processes within the system and not look for what "central entity" is doing. Thus, when studying leadership in agile self-managed organization there is a case for approaching it from a process view and additionally probe for processes not directly conducted by supposed leaders in the organization.

3.2 Leadership sub processes

The previous study by Dolenc argued that leadership and management could be further broken down into a sub set tasks, or in this study addressed as processes, are described in tables Table 3 and Table 4. The tables contain processes as found by Dolenc's previous study with some revision and addition based on newly found interest in keywords found in the conducted literature review of this study. The use of the word "process" instead of task, as in the previous study, was introduced after reviewing Grints take on leadership which divides perceptional view of leadership in four categories [11]. Of these four categories leadership as a "process" was deemed the appropriate approach when studying leadership in self-managed agile organizations, based on the results of reviewed literature answering the first sub-research question.

The table structures are such that the “references” column indicate which sources of the reviewed literature imply the addressed processes belonging to their respective category of either leadership or management. Furthermore, the function descriptions are drawn from a public online business dictionary [62] as to not inflict further confusion of used terminology and referring to a wider standard [19]. The asterix after the name of the function indicate that the dictionary does not have a description for that exact wording, however the description was drawn from near similarities found in the same online dictionary in addition to the findings of the reviewed literature.

Revision of the tables from the previous study [15], included Kottermans statements regarding *limiting choice* in managerial process and *increasing choice* in leadership process, where deemed as general consequences of management and leadership respectively after reviewing Kottermans sources of reference [17, 31]. Additionally, the tasks *Executing without emotion* within managerial tasks and *Executing with emotion* within leadership tasks, where regarded not as processes, but rather as enabling factor for execution of the processes [16, 17, 63, 31]. Another enabling factor concerning both leadership and management process was found in the field of cybernetics, that highlights the iterative nature of systems without central decision-making entity [25]. Thus, arguably all processes in the system, or organization, should be of an iterative nature enabling adaption to change and acting more efficiently to reach the goal of the organization.

Furthermore, the managerial processes *managing vision order* was revised to *prioritizing* as to not create confusion using the word “vision”. *Improving labour relations* and *Establishing direction*, where revised to *Conflict resolution* and *Establishing vision* after suggestions from peer reviews of the previous study [31, 30]. *Improving labor relations* could be potential consequence of *promoting useful change* [17]. However, it presented as its own leadership process, since it can also be interpreted as conflict resolution between individuals. The addition to the leadership processes was *Establishing purpose* based on the notions of ambidextrous organizations and additionally reviewed material [34, 32, 33].

Table 3 – Management processes		
Process name	***Description*** [62]	***References***
Planning	*A process of creating one or more elaborate plans to achieve balance between the needs and demands of the available resources*	[18, 17, 16]
Budgeting	*A process of expressing quantified resource requirements into time-phased goals and milestones*	[18, 17, 16, 64]
Evaluating*	*A process of analyzing completed or ongoing activities that determine or support accountability, effectiveness and efficiency*	[16]
Facilitating*	*A process of helping a team or organization overcome issues or problem solving, but not contributing to the actual content*	[18, 17, 16]
Organizing	*Assembling required resources to attain organizational objectives*	[18, 17, 16, 64]
Staffing	*Selecting and training any individual for a specific job functions and holding them accountable with the associated responsibilities*	[18]
Monitoring	*Supervising activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets*	[18, 17]
Problem Solving	*The process of working through details of a problem to reach a solution, including mathematical or systematic operations*	[18, 17]
Prioritizing*	*A process of assessing a group of items and ranking them in their order of importance or urgency*	[18, 17, 64]
Controlling	*A process of establishing benchmarks, comparing actual performance against them and taking corrective action if needed*	[18, 17, 64]

Table 4 – Leadership processes		
Process name	***Description*** [62]	***References***
Building trust*	*Creating frequent and meaningful interaction between organizational stakeholders, where individuals learn to feel comfortable with their individuality around other organizational stakeholders*	[16, 27, 32]
Establishing purpose*	*Settle reason for organizational, team or task existence beyond reasonable doubt*	[34, 32]
Establishing vision*	*Creating a sense of intended direction for the entity or organization beyond reasonable doubt, with the help of a mental process were images of a desired future (goals, objectives, outcomes) made intensely real and compelling to act as motivators for the present action.*	[18, 17, 64]
Coaching	*Extending traditional training methods to include focus on a individuals needs and accomplishments, close observation and impartial and non-judgmental feedback on performance*	[16, 27, 32]
Selecting talent*	*Selecting people with a natural ability to excel at a duty or action. This also requires the ability to identify the people who can excel at a specific duty even if it is not obvious to all at the time of selection.*	[16, 59]
Aligning people*	*Linking organizational goals with the employee's personal goals. Requires common understanding of purpose and goals of the organization, and consistency between every objective and plan right down to the incentive offers*	[18, 17, 64]
Motivating	*Using incentives, persuasion, and mental or physical stimulants to influence the way people think or behave individually or in groups*	[18, 17, 16, 64, 65]
Inspiring*	*Drawing on individuals existing mental incentives and their own aspirations to influence people simply to act or to think differently*	[18, 17, 65]
Promoting useful change*	*Actively proposing something different that is assumed to be useful for the organization, environment or the individuals in the organization*	[18, 17, 64]
Conflict resolution	*Coordinating and balancing the possible conflicting interests of all organizational stakeholders in the form of intervention aimed at alleviating or eliminating discord through conciliation*	[18, 17]

4. Empirical Methodology

The goal of this qualitative study conducted by open ended questions is to answer the following supportive research question:

SQ3: How do agile practitioners in leadership positions view leadership?

Furthermore, it aims to see if practitioner's views are in line with the understanding derived by the literature review. The underlying assumption is that the perceived organizational leaders view on leadership is reflected in the way he or she has chosen to structure their respective organizations and how they operate within it. Thus, hopefully shedding some light on how leadership is regarded and distributed in respective organizations. Leaders of organizations were also chosen (over anyone else in the organization), because previous research has also called for research including leadership of top executives [13] and practitioners of leadership have a trial and error approach to leadership [19]. Even if the same study suggests that there is a need for better alignment between leadership practitioners and scholars, it does not mean practitioners would not have found effective ways of conducting leadership that academia would discredit for the inability to generalize these practices.

These assumptions mentioned above and encouragements mentioned by previous research support a qualitative research approach, because the researcher often adopts a "interpretivist" position and the objective being *"understanding of the social world through an examination of the interpretation of that world by its participants"* [66, p. 230]. Opposed to positivism, often adopted within quantitative research, that applies methods to explain human behavior [66, p. 14].

In other words, in this study an understanding of the social phenomena of leadership in agile self-managed organizations is being formed by trying to interpret how leaders of agile organizations view the social phenomena of leadership. Additionally, a review of qualitative research conducted within the field of leadership, revealed that qualitative leadership studies within transformational leadership had proven significant help in the research of the field by providing an appropriate foundation for quantitative studies [67]. Hence, this study could provide an appropriate foundation for future quantitative studies in *"…how to facilitate success of shared and distributed leadership in the context of decentralized organizations"* [13, p. 361] as pointed out by Gordon & Yukl, which up until the last decade still seemed to not be adequately research [12].

4.1 Studied sample

Interviewees where chosen based on a preliminary research probing for statements of whether an organization is employing so called "self-managed" practicalities and seemingly working effectively, based on secondary data and word of mouth. The preliminary research yielded four different organizations, of different sizes, having different business models and operating within different fields. They were interviewed probing for the answers to the supportive research question numbers two and three. These interviewees are described below.

- A startup with less than 15 employees, operating in two countries out of one office. Providing innovation workshops, "hackathons", for business within more traditional industries, traditional industries as in those that have existed before the software era. The CEO was interviewed; "Startup CEO"
- A non-profit organization with less than 50 fulltime employees, mainly operating in four countries out of four offices. Core business being creation of business-to-business events. The CEO was interviewed. "Non-profit CEO"
- A software company with less than 150 employees, operating globally out of four offices in different countries. The company has developed its own customizable social media marketing optimization software it sells mainly to companies that spend millions on Facebook marketing. The CEO was interviewed. "Scale-up CEO"
- A software consultancy company with less than 500 employees, operating globally out of offices in five different countries. The company specializes in software production and software project management for corporate and governmental entities. A leadership coach within the organization was interviewed; "Leadership Coach"

This study chose not to limit itself to industry or size of the organization. A non-profit organization was also purposefully included. As Laloux theorizes, self-managed organization can exist within any field and be of any size [1], hence this study tried to find a set of interviewees that would reflect this notion. In addition to these organizational leaders, to have a third party "expert" view on the research question, more specifically to the supportive research question number three and to involve a form of third party consultancy to the research topic [68]. Thus, two consultants or experts in the field of agile working and leadership where interviewed as well with focus on probing for answers regarding the used terminology. Mainly for the used terminology, since it was

deemed more interesting to understand how agile experts consult their clients or others wanting to construct self-managed agile organization rather than how their own organization is structured. The two agile experts are described below.

- An expert consultant in the field of digital transformation hired to work within a big industrial engineering company to deal with change management among other responsibilities. “Internal Consultant”.
- An expert consultant in agile organization working for a globally respected consultancy company and dealing with major corporate clients (having several thousand employees) that want to undergo companywide agile transformation. “External Consultant”.

The following table gives an overview of the conducted interviews

Company	Interviewee	Date of interview	Duration
Startup	Startup-CEO	30.06.2017	56:55
Non-profit	NP-CEO	04.07.2017	26:29
Scale-up	Scaleup-CEO	07.07.2017	58:56
Software Consultancy	Leadership-Coach	12.06.2017	50:05
Organizational Consultancy	External-consultant	21.07.2017	1:11:52
Corporate	Internal-consultant	20.07.2017	40:46

4.2 Interview approach: semi-structured interviews

The interviews were conducted following a general interview guide approach, a semi-structured informal interview having some structure to it and a possibility for in-depth learning, regardless of the interview being relaxed and informal [69]. This method of interviewing was chosen for its strength “*...to ensure that the same general areas of information are collected from each interviewee; this provides more focus than the conversational approach, but still allows a degree of freedom and adaptability in getting information from the interviewee”* [70]. This research strives gather in depth knowledge from practitioners, without knowing how the interviewees might view their organization or leadership, but there still need of keeping focus. Thus, sticking to a

certain set of questions could prove counterproductive to the objective. The format also allowed a ease of commitment for interviewees to participate, it was assumed by the researcher that the participants would be more eager to participate if the interviewee was as informal as possible and thus allowing for more flexibility, since organizational leaders tend to have busy schedules. Only one potential candidate declined.

Preparation and implementation of interviews followed McNamaras [70] suggestions of good practices, also included in Turner's summary [69]. The interviews were conducted in environments with as few distractions as possible. The reason of the interview was elaborated and explained when contacting the potential interviewees, along with addressing the estimated length of the interview. Upon meeting, before beginning the interview the terms of confidentiality were addressed and the format of the interview was explained. Furthermore, the participants were asked if they have any questions before beginning and they were notified that they can get in touch about anything later if they want to. The interviews were recorded and the recording device was tested before beginning, along with a backup speech-to-text recorder. A set of open ended interview questions within themes formed around the topic of research had been made prior to the interviews, however follow up question were conducted during the interview without any prior preparations.

4.3 Form of analysis

All of the interviews of the included the following themes aimed to answer the supportive research question number three, but did not always follow the order of the described scheme:

SQ3: How do agile practitioners in leadership positions view leadership?

1. Background information (position, experience, nature of their organization)
2. Leadership as the interviewee understands it
3. How the interviewee sees management vs. leadership
4. What the interviewee thinks self-managed teams are
5. What the interviewee thinks self-managed organizations are
6. Understanding of the used terminology (management vs. leadership, self-managed vs. self-organized)

In addition to these the organizational leaders (The CEO's and the leadership-coach) included the following themes based on the findings of reviewed literature.

7. Purpose of organization and possible process for defining it
8. The structure of the organization
9. Communication in the organization
10. Learning and feedback in the organization
11. How the organization finds inspiration
12. Recruiting in the organization
13. Trust and conflict resolution processes in the organization

Interviews were conducted in English with two exceptions that were interviews conducted in Finnish. The interview recordings were transcribed in the conducted languages, within a few days of the interview as recommended [71, p. 123]. All spoken words were transcribed, however hesitations and filler words that did not add to meaning were left out of the transcripts. Furthermore, the parts were the interviewee described themselves and provided a short description of their company was left out. In addition to the themes described above, the interviews with organizational leaders also included topics outside the topic of this research for the needs of another study of the same group. These discussions were also transcribed, but in the analysis phase they were left out. Additionally, the analysis phase included the translation of two interviews conducted in Finnish, to English. The interpretations made from the data are the responsibility of the researcher, as well as the English translations in the discussed findings.

Analysis of the data followed the method of qualitative content analysis, more specifically as a summative content analysis as explained by Hsieh & Shannon [72]. This approach implies that the used coding is based on keywords identified before and during the data analysis, rather than the alternatives of theory based approach (directed content analysis) or an approach based on observation (conventional content analysis) were codes are only defined during the analysis [72]. The keywords used were derived based on the interest of researcher, stemming from previously conducted research [15, 21] or interests in other keywords formed during the analysis. The keywords were used for categorization and as inherent of the summative approach; analysis of patterns leads to *"...an interpretation of the contextual meaning of specific terms or content"* [72,

p. 1286]. This supports the objective of the research questions, since it seeks to find what the word "leadership" means within the context of "self-managed organizations".

As previously mentioned some of the transcriptions included parts that were not within the scope of this research. However, the interviews that included topics outside of the scope were structured in a way that the parts were not overlapping. Furthermore, it was clearly stated when the interview moved to the new topic, which allowed a clear differentiation of the analysis approach if need be. Hence, only the parts of the transcriptions relevant for this study were categorized according to the summative approach and using keywords. The transcripts were first coded according to keywords in four categories with 37 subcategories based on the results of the literature review. However, some words keywords and concepts were not within the scope of this qualitative study. Additionally, new keywords of interest were found. Thus, the categorization was revised into two main categories and 15 sub categories based on keywords. The categories and sub categories are described in Table 5.

Each interview was first analyzed separately, after which the interviews were analyzed in search for differentiating or similarity of opinions between interviewees. Opinions and views were also reflected against the different theories reviewed in chapter 2, in addition newly found interest in certain theories by the researcher, interest based on the analyzed data. The definitions of the keywords analyzed in the subcategories are drawn from previously conducted research [15]. Furthermore, the findings of respective main categories based on the conducted analysis are described in chapter five. The findings are summarized and discussed in chapter six.

Table 5 – Keyword categorization

Category	***Subcategory***
Leadership	Building trust
	Establishing Vision
	Establishing Purpose
	Coaching
	Selecting Talent
	Aligning people

	Motivating
	Inspiring
	Promoting Useful Change
Organizational practices	Conflict resolution
	Recruiting
	Communication
	Learning
	Feedback
	Structures

4.4 Trustworthiness

Qualitative research has been deemed untrustworthy by many critics, however following strict frameworks to tackle this issue of untrustworthiness have existed for years [73]. One such framework followed by many is Guba & Lincolns that research should address and meet four criteria these being; Credibility, Transferability, Dependability and Confirmability [73].

Credibility – Credibility refers to four things; 1. Familiarity of the field to the researcher 2. Sufficient data to merit the claims presented 3. Quality of links between observations and categories formulated 4. Agreeability of findings by another researcher [73]. As a qualitative study and due to the small size of the data the study tries to refrain from making any general claims based on the findings. However, the data contained views from industry experts that are familiar with both the practical applicability and theoretical stand points of the discussed topic. Additionally, the researcher was very familiar with the topic prior at hand, adding to the quality of links.

Transferability – The researcher has the reasonability to connect the study to prior research, not replicating, but expressing similarity to other research context [73]. This study builds on previous study conducted by the researcher [15], among multiple other references to different fields of study across chapter 4 and 5.

Dependability – Addressing the need for reliability, dependability entails the need for detailed description of the process of the conducted study for others to be able to repeat the research, if not event to gain the same results [73]. The researcher feels sufficient description has been provided in this chapter, even to point of repeatability within a given time frame. The interviewees might however change their view of the world given enough time.

Confirmability – As explained by Shenton comfortability means the researcher must show that the findings do not represent his or her own predisposition [73]. The researcher admits having potentially suffered from a predisposition, due to the extensive knowledge in the field and the categorization in the analysis phase being based on previous research conducted by the researcher. However, close attention was given to keep all questions open ended, even when intensely probing. Additionally, multiple citation was provided to show interpretations stemmed from the gathered data.

5. Results of empirical study (SQ3)

This chapter highlights the interviewees views on leadership, management, self-organizing teams and organization. Furthermore, it derives an understanding of self-management and self-organization of teams, the "building blocks" of agile organizations. The findings described in this chapter aims to answer the sub research question number three:

SQ3: How do agile practitioners in leadership positions view leadership?

Keyword categories of this qualitative empirical study were derived based on an iterated version of the findings from a previously conducted literature review by Dolenc [15] and an interest in keywords during the data analysis. The previous study derived a model for leadership based on the view of leadership as a process (the findings of the previous study are summarized in chapter 1.3). The literature review in this study aimed to iterate on the perceptional view of leadership in the previous study by Dolenc [15] in the context of agile self-managed organizations and find scientifically accepted organizational descriptions of such organizations, not just contemporary leadership literature.

The aim of this empirical study was to understand if the interviewees in fact have a similar view of leadership as the described results of the literature review in this study. Thus, arguably validating, to some degree, the constructed model on leadership in this research. Chapter 5.1 describes the findings of interviewee's views on the following subject; views on management and leadership, views on self-management and self-organizing teams, and views of self-organization of organizations.

To scope this empirical study and based on interest on keywords during the data analysis, the researcher chose to mainly focus on findings, along with the keywords described leadership processes in Table 4 (chapter 3.1) and not the management processes described in Table 3. The summery of the results of the empirical study are listed in chapter 5.3 and the words used by the interviewees to describe leadership is cross-referenced with the results of the literature review. Further discussion of the findings of this empirical study is conducted in chapter 6.3.

5.1 Views on management and leadership

The iterated model is described in chapter 3.2 separates between management and leadership processes. This modeled view of leadership received further validation from all interviewees stating that there is a difference between management and leadership.

" *… there is difference. If I start to think about it right now… In our company, we have been pretty allergic to managers. We don't have any managers in our organization."* - Leadership Coach

"*… I think there is, the differences being obvious. Good leadership is more about leading people and that sort of thing. Leading people I think it's a bit more tricky than management."* – Startup CEO

"There definitely is a difference. Both are needed in self-organizing organizations and if you think then what makes it possible to have a self-organizing organization." - Scaleup-CEO

"I do (think there is a difference), but I think is more about defining the word." – NP-CEO

"There is a difference between management and leadership" – Internal Consultant

"Management is creating stability (in an organization) with the help of people…Leadership is more of doing the right things in the right way…" – External Consultant

The findings suggest the leaders of agile organizations see management and leadership as different things mainly because the word or concept of management is so heavily associated with positions within hierarchical organizational structures. However, agile leaders do not think there would be no need for "management" per say in their organizations just not the kind that allows for decision making of problems people are not engaged with themselves. Something hierarchical organizational structures allow [20].

The reviewed literature supports this notion, admitting that leadership and management are not mutually exclusive, but contains elements and processes that support each other [18, 10]. Management is more concerned with the present and leadership concerns itself more with the future [17, 18], along with why things are done [34]. The processes perceived to be within management keep the organization running as design, providing stability, were as leadership challenges the current status quo [64].

Furthermore, the findings suggest agile leaders view leadership as something that can be distributed to some extent, or it can be shared for at least most decision making associated with the "how" and "when" of organizational problems. Additionally, the why and the "purpose", rather than "mission" was addressed in the context of leadership in organizations and the "what" being an important part of is as well. However, views on who can and should define the "what" and the "how" varied between the interviewees. The leaders of agile organizations also acknowledged there is still a need for someone to create or own the specific processes that share leadership and someone to define the "environment", if the organization itself cannot find a way to do so. The organization could otherwise supposedly get stuck or plunge into uncertainty. As described by the interviewees:

"People want to be led, but they don't want to be managed per say, but people want to be led, they want to have leader they can rely on, who can guide them through the difficult times, who gives them confidence and inspires them. So I think that is very important." – Scaleup-CEO

"S*o the balance between giving space and having a clear vision and waiting for the organization and the people. That is showing people in the organization the way, but then wait for people to make their own decisions. Leadership has a lot of that and it has to do with building systems, establishing rules and building culture" – Startup-CEO*

The findings in this sub chapter seem to suggest the interviewees have the same characteristics on leadership and management, as the one derived from the literature review. The following chapters describes the interviewees views on organizational teams within the studied organizational model.

5.2 Views on self-managing and self-organizing teams

One of the findings Dolenc's previous study was that in agile software development teams implementing Scrum, some aspects of leadership do not exist within the team itself [15]. Hence, Dolenc argued that such teams are better described as s*elf-managed*, rather than *self-organizing* teams. To probe what the interviews thought of the use of terms in their perceptional view of agile working methodologies in teams, no unified answer was found, but a commonality in understanding of how such teams operate was. For two of the interviewees the use of terms *self-managed* and *self-organized* did not really matter or they had no perception of there being a difference. As the interviewees describe;

"Its actually pretty well defined in Richard Hackmans "Leading Teams" or then in the book "Wisdom of Teams". In one of the two they are reasonably well defined. What practical implications this has doesn't matter much, but if you want to be pedant about the use of the word, then self-directed is one that sets its goals by itself. So they have the ability to choose their own goals, like a startup team chooses what they do, in other words the goals are not given from the outside." – Internal Consultant

"I would say that for me those (self-management and self-organized) would be pretty much synonyms for each other, or use of the words organizing and management are the same here." – Startup-CEO

However, other interviewees supported the notion that some aspects of leadership do not exists within the team and there are "external inputs".

"There are different kinds of self-organizing teams. Three arch type, in my work I use two. One is self-managing and the other is more cross functional team, like a Scrum Team. Self-managing is more like the Buurtzorg model… self-organizing teams represent to me, one that does not have bilateral skills, so everyone in the team is doing the same kind of work and totally flat. No PO's, no Scrum Master. They act as equals and they work against certain set of metrics. The Buurtzorg teams have three metrics: profitability, customer satisfaction and team satisfaction and against these the teams can fully autonomously make decisions. The other types of teams are the ones with different roles, like "squads" that Spotify and ING uses, you have a PO (product owner), cross functionally different people and then different scrum master roles, agile coaches or chapter lead roles that kind of help the teams. From the them comes the "what" to do and the "how" comes from the teams themselves." – External Consultant

"I think the essence is that there's not some person telling others what they should do. I mean, from two points of views; not to say what they should and not saying how they should do it. So self-organization to my mind requires both of these (practices). Obviously, there is some problem definition from outside of the team." - Leadership Coach

"*On a team level, self-organizing teams are basically a group of roles so that one person can be in multiple self-organizing teams and the teams are basically gathered to solve a problem or an*

issue or fulfill a purpose. Along with taking care of everything related to solving that problem or fulfilling that given purpose." – NP-CEO

The findings suggest that there is something given to teams "from the outside", may it be a goal, problem description, purpose or metric. In other words, at least a "why" and varyingly, depending on the nature of the team a "what" is given the teams. However, the "how" and "when" is decided by the team, whatever the nature of the team. The following chapter describes the interviewees perception of how such teams translate to an organizational level.

5.3 Views on self-managing organization

Taking the notions of self-organizing teams further to the context of the organization. The researcher probed for what leaders of agile organizations and agile experts see as self-managed organizations, as the one described by Laloux [1]. This became a relevant to question during the keyword analysis, since organizational structures affect leadership and vice versa [9, 1] and because the given research question in this study uses the term "self-managed organization". The understanding varied, but the same trend as for team level decision making of how and when continued. One understanding was that to some extent every organization is self-organized since nobody from outside of the organization, gives the what and the how, those are decided within the organization.

"I would say that any kind organization is pretty much self-organized. So I'm saying, like here use the example of limited public companies that have a board, who is selected by the owner's and then there basically in this context "owners" that have interests in that organization. The organization is expected to do "a task" and then to continue to do that, being a mission of some sorts, but the owners are necessarily not telling how is should be done. But then the other hand it's not being a self-managing organization, if the organization from "outside" by board the board not consisting of people who get theirs "hands dirty". So I would say that self-organizing organization would be an organization were the owners, the board and others actually consist of the people who are actually doing the work, they are "waking up every day to work an organization or rather it's cause" and decisions would also be made by the people who "work full time". In essence, all these people can make the decisions that are related to the organization by themselves." – Startup-CEO

"*All organizations are somewhat self-organized, like their directing doesn't happen from the outside. Self-organizing just has different structure, such (structures) that has to do with directing, learning and leadership."* – Internal consultant

"*So one problem I see in organization is when they want to transfer to something new, they very often initially have an idea that they should find out the best ways to work in their context and write them down and distribute to everyone in the organization and every team. Then (they assume) everybody would be acting according to the same set of rules. But to me the self-organizing organization recognizes that even inside the organization the same solution doesn't fit every team and every problem they face. So every problem they face should sort of open to and give room for teams to choose whatever is the best way to solve their problems or improve their situation… For me the self-organizing organization would leave definition of processes and definition of improvements to the teams of people working there, they anyway know better the best and sort of what is relevant to them*" – Leadership Coach

If management is concerned with the what and the how [11], then the use of the term self-managed organization seems to be in line with the given explanations. All organizations are maybe not self-managed, but even hierarchical organizations can be self-directed since most organizations establish their own goals within the organization even if it's only done by the "leadership" or owners. There does not seem to an implied difference between self-managing and self-organizing organization in the views of the interviewees, the common factor for their views is that most operational decision-making seems to happen on a team level.

"For me self-organizing organizations is one that can make decision, the right decision, about the customer, about the product at a team level. So, there is no need for anyone to lead on a micro level the decision. Decision can be made fast and you can hire people that knows better and understands better about how it is supposed to be done… people are much more motivated and it's much more fulfilling for people to able to learn and decide not only what they do, but how they do things. I think that is the core of self-organizing organizations" – Scaleup-CEO

"Taking it one step broader from the team (agile team) it's then a multitude of those teams that are gathered to fix a problem or serve a purpose, or the problems around that specific purpose. One purpose might have different problems related to it, but it's always somehow around teams or groups of people within those teams and they might have sub purposes, but they are all somehow

connected to the one greater purpose. They (teams) all share the same values, the same guidebook on how to work, or what are the shared principles on how we work together, but all the activities and decision-making actually happens within the smaller teams" – NP-CEO

These notions described above seem to be in-line with purpose driven organization, were the organization is driven with a common sense of why [1]. However, in contrast not all interviewees highlighted the need for purpose or addressed, were what kind of decision-making is done.

"I think one recognition has been that there is nothing in a organization of our size (400) that there is not any more one purpose that would fit everybody. Because purpose should be something that gets you moving in the morning, so it's different for different people." – Leadership Coach

"*What I use in my work is a three-part definition (of organizations), agile organization being pretty close to that. Highly productive, flexible & adjustable and engaging people. The first implies very clear processes, very clear rules of operating. On the other hand, one can change depending on the situation, additionally the people need to be seen whole. These three elements (are integral parts of agile organizations)."* – External Consultant

Finally, to suggest that the derived vocabulary and academic framework derived from the literature review supports the conducted empirical study the agile expert explains;

"There are couple of ways to approach this. Academically closest to the topic, I started my disputation (doctoral) of something called "contextual ambidexterity", in academic context. It starts with the argument that there are two things the organization can do… exploitation and exploration... Exploration being finding new ideas and recourses, whereas exploitation is exploiting optimizing the existing… then different models (organizational) for this (conducting both). One is structural ambidexterity, as in you have something within your structure searching for the new. You have production exploiting the old. Contextual ambidexterity dictates that the individuals in the organization can make decision on based on the situation weather to exploit the old or to search for the new. In this (contextual ambidexterity) one has always (theory surfaced in the 80's) done decisions in the "front end , then there is an understanding that the organization needs "trust, discipline, stretch and something" for the organization to be in contextual ambidexterity… The other (approach) is cybernetics… self-organizing or agile organizations live

in a world so complex… there can no longer be a separate brain and body they need to be the same. The system needs to be able to control itself, being self-organized" – External Consultant

The findings of this sub chapter suggest that the interviewees believe self-organization within organization, in the sense that most decision-making should and can be done by the teams and individuals. However, there was no common understanding weather the organization needs a purpose to operate and how alignment between teams happens needs further research. The following chapter describes the findings of this empirical study and the keywords associated with the leadership processes, as described by the interviewees, are listed in a table.

5.4 Summary of results

This chapter summarizes the results of the empirical study. The findings regarding the perceptional view of the interviewees in terms of the following subjects; views on management and leadership, views on self-management and self-organizing teams, and views of "self-organizing organizations" can be listed as the following:

- Agile practitioners and leaders of agile organizations think there is a difference between management and leadership. However, no commonality of the difference could be derived based on the answers.
- The use of the terminology "self-managed" or "self-organized" either did not really matter to the interviewees, or there was no clear understanding of a difference in the context of teams. Never the less, all interviewees described some sort of external "input" to the teams within the organization. Additionally, how work is done and how problems are solved in self-managed teams are decided by the team itself, was an understanding all interviewees had.
- Interviewees described the key factor agile organizations and self-organization within them, as organizations where decision-making mostly happens within the teams of the organization.

Consequently, these notions suggest the interviewees believe that teams should be able to decide on anything in at least the domain of how and when, maybe even what depending on the circumstances. Furthermore, it drove the researcher to further probe for processes mainly associated with leadership and not management, due to the interviewees stating "management"

being a term to avoid, or as one of the interviewees stated, “allergic to the usage of the word management”, in a self-organizing context.

To give an overview of how the interviewees did describe leadership, Table 5 on the following page, shows the used words and concepts. There were words and concepts outside of the terminology associated with *leadership*. However, these were either processes to describe the organizational practices not associated with leadership in their mind, or could be considered enabling factors for constructing self-managed organization, which without or employed differently, would arguably not make the organization a self-managed one in the minds of the interviewees.

Table 5 – Words and concepts used to describe *leadership* by the studied sample

Category	***Subcategory***	***Found in study***
Leadership	Building trust	x
	Establishing Vision	x
	Establishing Purpose	x
	Coaching	x
	Selecting Talent	x
	Aligning people	x
	Motivating	
	Inspiring	x
	Promoting Useful Change	x

	Conflict resolution	
Management	Planning	
	Budgeting	
	Evaluating	
	Facilitating	x
	Organizing	
	Staffing	
	Monitoring	
	Problem Solving	
	Prioritizing	
	Controlling	

6. Discussion

This chapter discusses the findings of the conducted research. The discussions around each sub research question are divided in their respective sub chapters for clarity of context. Additionally, a brief reflection of the findings in terms of the main research question is found in chapter 6.4. Furthermore, criticism of future studies are discussed in chapter 6.5.

6.1 SQ1

Cybernetics explains the decentralized system and core functions of self-organization [25]. Complexity theory lets us understand the current environment in the business landscape [45], systems thinking lets us understand how the organization relates to a complex environment drawing on notions from cybernetics [26]. It has been scientifically proven that ambidextrous organizations produce efficient performance when balancing between exploitation and exploration [51, 27], these two being widely accepted by the academic community as the two actions organizations conduct [54]. Contextual ambidexterity draws from notions of complex adaptive systems, arguing that ambidexterity should and can be achieved on a business unit level [45, 27]. Thus, the closest one can get to an academically accepted view on self-managed agile organizations is contextual ambidexterity in organizations.

However, the question should be raised; why now in the history of organizational science, has contextually ambidextrous organizations emerged to arguably be the most efficient way to build organizations? Of course, the rapid rate of innovation and change plays its part, but another notion should be considered from the field of cybernetics. Namely the ideas sparked out of Wiener theorizing that the first industrial revolution happened when machines substituted the need for human labor and the second industrial revolution happened when machines started substituting the need for humans to process information and conduct decision-making [40].

Others have picked these ideas and theorized about post-industrial society where “knowledge” is the central recourse, unlike the central resource capital during the industrial era [74, 75, 76]. If this is the case, and as second-order cybernetics argue that “knowledge is of biological nature” [29]. Thus, humans are arguably the central recourse in the post-industrial society. Maybe we are entering this era and that is why contextually ambidextrous organizations have proven to be highly efficient in today’s world [27, 32].

As famed management thought leader of the industrial era Peter F. Drucker stated in his book Post-Capitalist Society, *"If the feudal knight was the clearest embodiment of society in the middle ages, the bourgeois under Capitalism, the educated person will represent society in the post-capitalist society in which knowledge has become the central recourse"* [76, p. 10]. He also stated that since harnessing knowledge becomes the central resource in the "next" society (arguing it would arrive sometime between the years 2010-2020), power comes from transmitting information, making it productive, instead of hiding it [76].

6.2 SQ2

According to Grint leadership as a process, or as something leaders "do", still requires some sort of dedicated person exercising the action [11]. However, this research wants to suggest that leadership as a process could be fully distributed equally among everyone in an organization, acting much like the systems cybernetics were concerned with understanding [25].

On the other hand, the process of which these systems in cybernetics act upon are teleological (system actions are caused by the future and not the immediate past), thus not accepted by the scientific community [40]. To deal with this issue, Ashby suggested a system model that has a regulator, that models the regulated system [25]. For it to do so, it needs as input, a model of the regulated system, and a description of the current and desired future state for the action in the system to be cause by the future, not the immediate past [39]. Translating all the notions above into the context of leadership in self-managed organizations, if there is to exist a regulating entity consisting of one or many leaders, that entity needs to model the organization and it cannot do so without a description of the modeled organization.

Additionally, when a description of the current state and the future state of the organization are added, the actions in the organization can arguably be caused by the future, not the past [39, 25]. Thus, this suggests that to construct a decentralized organization that reacts to the future, not the past, and can reach a desired goal within the organization, it needs; a clear vision of the organizations future is needed, a description of the current model (or state) of the organization, and whatever processes are in place in the system they need to apply to the regulating entity as well. Whether the regulating entity needs a person (or persons) cannot be said, but the regulating entity could be associated with leadership and the concept of leadership is so heavily engrained in popular thought, that the absence of leadership means there is no organization [9].

This would imply a model for analyzing the different processes in an organization is needed that fits a certain theoretical framework, that would allow for a description of both the current and the future for organizational regulators to model. The conducted research focuses on processes associated with leadership and management, but it is not to say there would not possibly be other processes needed to be modeled. Furthermore, there seem to be enabling factors for the processes in the organization such as the role of emotion [31, 17] or the iterative nature of processes in decentralized systems adapting to change in their environments [45, 25]. However, there might be more such integral factors to successfully implement the processes in decentralized system, to implement self-management in organizations.

6.3 SQ3

Agile practitioners seem to have the same understanding of leadership as the derived model from the literature review. However, they seemed to avoid the use of the term management, or being "allergic" to it. This "allergy" could be explained by the ideology of *Managerialism*, which is associated with hierarchy as contemporary management writer Thomas Diefenbach theorizes [24, 20]. Hierarchical views do not work well with agile and self-management ideologies that see organization as non-hierarchical [1, 2, 4].

Furthermore, the findings suggest that agile leaders see leadership as something that has to do more with people than with things, or simply an understanding that leadership is not something you do alone. As leadership theorist Bennis explains *"the only person practicing leadership alone in the room is the psychopath"* [14, p. 3]. Additionally, it seems that agile leaders see leadership as something that can exist within anyone in the organization, thus it can be at least partially distributed or be emergent by nature, along with something that is continuous and a matter of perception. However, there is some personified view to leadership as its about establishing or building something within the organization, much like the view of leadership in the context of ambidextrous organizations [27, 51, 33].

These notions of leadership seem to also be in line with understanding of leadership in complexity theory [8]. Complexity theory challenges one to think about leadership as creation of environments that have the necessary conditions for innovation, not trying to create innovation itself. Complexity theorists also encourage revision of traditional leadership models, having less of centralized

"management" [77]. However, there are arguably different types environments [78] and not all problems exist within a complex paradigm, as the Cynefin framework explains [79].

Purpose seem to be something needed in self-managed agile organization, but the interviewees described different degrees importance of purpose and how it should be derived, along with how it should be established. However, contextual ambidexterity argues a clear need for purpose in organization and plays an integral part of forming culture and discipline with the organization [32].

Never the less, the interviewees clearly believed in the concept of self-managed organization. That being the only critical factor for successfully establishing self-managed organizations if one tries to do so [1]. Since it seems to be a "belief" owners and CEO's that hinders organization from employing self-managed organizations, and belief being a matter of perception of the observer [40]. Maybe conceptual cybernetics could hold the key to changing that perceptions from a scientific approach [29] and a clear framework for analyzing leadership and management processes in an organization may help in forming an accurate description the current stat of the organization, along with a desired future state.

6.4 RQ

Aristotle thought of governance or arguably leadership, as an art [35]. Art does not seek a goal, it is an expression of self and the highest expression of human spirit. As such, distributed leadership in an organization allows everyone to express their spirits as individuals, thus cumulatively expressing the spirit of the organization. If one then wants to know whether leadership is distributed in organization, one should look for the spirit of the organization and the degree to which each individual expresses themselves, or to the level of discretion to which they are allowed do so.

6.5 Limitations and future studies

As with any research, the present study is subject to limitations. As pointed out by Gronn, distinguishing between leadership is difficult [30], others even argue that trying to do so is counterproductive [23, 31]. However, distinguishing between leadership and management is a consequence of viewing leadership as a process [11] and there is a clear case for approaching leadership as such [60]. Moreover, researching what leaders do, rather than what position they hold or who they are, is also an approach employed by research in the field ambidexterity in

organization [33, 55, 32]. Whether the model constructed through the literature review is accurate one remains undisclosed, it seems to fit into reality, but it does not necessarily mean it matches it. The study of leadership is within the field social science, as such leadership is a matter of perception [10]. As such, it is suggested that leadership studies should clearly state from which perception of leadership they approach leadership [11], which this study addresses in chapter of this research.

Even if this study clearly states which approach it takes, and derives some sort of result, it does not mean it creates an academically quantifiable result. However, regardless the fact this study drew its inspiration from contemporary leadership writings [1, 2, 4], the study derived its model from previously established and academically accepted notions that also have empirical results to support them. It was also noted that the reviewed scientific research used almost completely different terminology, in contrast to the vocabulary used in contemporary literature, even if they described the same thing. Hence, highlighted the problem of the gap between leadership practitioners and academia [19]. Thus, there might be some misalignment when trying to integrate concepts.

The overall trustworthiness of the empirical study, including limitations in relation to the semi-structured interview method used in this study and the interpretations made by the researcher in the analysis, has already been addressed in more detail in chapter 4.4. The gathered data of this study, 6 interviews, is very narrow and more interviews would have yielded a more comprehensive understanding of how agile practitioners view leadership. Never the less, it at least gave some indication on whether the constructed model can be used to analyze organizations and gave an overview of how leaders of self-managed organizations view leadership, even if the sample was relatively small.

The study acknowledges the fact that there is no guarantee to the fact the chosen leaders of supposedly self-managed organizations, operate such organizations successfully, or in a self-managed manor corresponding to the scientific research. However, what was proven was that all interviewees believe in self-managed organization, which is the only hindering factor for successfully employing self-managing practices in the organization when trying to establish them according to findings by contemporary organizational qualitative study's [1].

Lastly, in terms of limitations and addressed to some extent in chapter 4, the researcher or the observer in qualitative study influences the research environment and the research can become self-fulfilling [73]. The researcher feels adequate measures have been taken to ensure trustworthiness, however any lack of it or serendipitous self-fulfillment in this study, is arguably not for the worse. As management theorist Dieffenbach argues, qualitative studies employing a semi-structured interview approach, have done more good than bad in the field of leadership science [43]. Highlighting best practices and driving the interest of the academia, something needed to foster an effective symbiosis between practitioners and scholars [19].

Furthermore, future studies could conduct vast empirical studies in the form of observation and conduct structured interviews on the basis on the derived leadership model. Search for the existence of these processes and summarize how organizations employing self-managing practices conduct the different leadership and management processes within their organizations. This might yield a series of best practices for each and thus arguably yielding quantifiable results than can be turned into prevailing theories in organizational leadership, accepted by both academia and practitioners. The lack of leadership seems to a be a problem in the world today, according to research conducted by the world economic forum [80]. Regardless of the reason for it, new and better theories in leadership to suit the prevailing business environment are needed, employed not only by practitioners, but within the educational system as well. Since bad management theories have destroyed good management in the past [81] and can do so again if no actions are taken.

7. Conclusion

Contextually ambidextrous organizations seem to be the closest academically accepted definition of self-managed organization, or "Teal" organizations as described by contemporary organizational theorists [1, 4, 2]. Contextual ambidexterity draws from notions within complexity theory [52], which in turn draws from the field of cybernetics [26]. Contemporary scholars in cybernetics theorize about an era after capitalism where "knowledge" is the central recourse [74, 75, 76], building on notions that existed in the field of cybernetics already in the 1940's [25]. Thus, arguably explaining why contextual ambidexterity in organizations, or may one call them self-managed organizations, seem to be the solution to dealing with the prevailing business environment.

Furthermore, leadership studies in the field of ambidexterity approaches leadership from the perceptional view of leadership as a process [33, 55, 32]. However, it does not draw from earlier process approaches to leadership, that inherently approaches it from a view that separates leadership and management [18, 31, 11]. Combining the described theories arguably gives a theoretical framework for analyzing leadership and management in self-managed organization, in addition to outlining what processes should be established and how to distribute leadership and management in such organizations.

The understanding of agile practitioners interviewed in this study, having leadership roles within presumed self-managed organizations, seem to be in line with the theories described in this research. However, even if there are commonalities in their understanding, no unifying perception of leadership and self-managed organizations where found. Further alignment between practitioners and academia need to be established, to hopefully find proven clear best practices so other organizational leaders can follow suite and change their perceptional view of how to construct organizations for the coming era.

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